



# OD01xP – 2016

Dear reader,

From October 24 to December 4 2016 Delft University of Technology ran an online course for professionals concerning Open Data Governance and Use. We would not have been able to create this course without the help of our guest lecturers. We would like to thank all the lecturers for their contributions to the course.

In this document you can find an overview of the various videos. You can use them for your work or for education (CC-BY-NC-SA 4.0 license). More information on this licence can be [found here](#).

If you reuse the videos we would love to hear about it. We hope this will help to spread the ideas of Open Data Governance and Use.

Thank you!

The ProfEd Open Data Governance and Use team

*Marijn Janssen*

*Anneke Zuiderwijk*

*Danika Marquis*

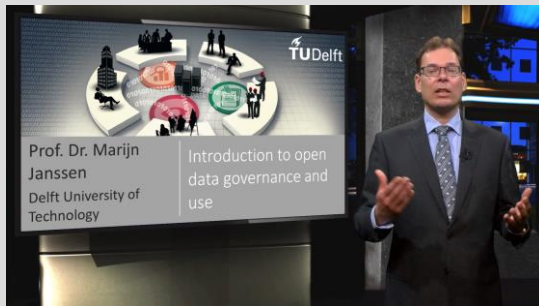
*Johannetta Gordijn*

*Martijn Pronk*

<b>Title of the lecture</b>	<b>Lecturer</b>
<a href="#">Introduction to open data governance and use</a>	Marijn Janssen
Challenges for (open) data governance and use, ( <a href="#">Part 1</a> , <a href="#">Part 2</a> )	Anneke Zuiderwijk
<a href="#">Theoretical foundations and concepts of open data governance</a>	Marijn Jansen
<a href="#">Theoretical foundations and concepts of open data use</a>	Marijn. Jansen
<a href="#">Open data infrastructures</a>	Anneke Zuiderwijk
<a href="#">Open Statistical Data</a>	Efthimios Tambouris
Open data infrastructure functionalities and tools ( <a href="#">Part 1</a> , <a href="#">Part 2</a> )	Anneke Zuiderwijk
<a href="#">Metadata</a>	Keith Jeffrey
<a href="#">Open data for public policy making</a>	Anneke Zuiderwijk
<a href="#">Licenses for the use of open government data</a>	Bastiaan van Loenen
<a href="#">Creating a pipeline for publishing open data</a>	Marijn Janssen
<a href="#">Open Statistical Data and the Data Cube Model</a>	Efthimios Tambouris
<a href="#">Data visualization and analysis tools and technologies</a>	Chris Davis
<a href="#">Linked Open Data technologies</a>	Phil Archer
<a href="#">Data Quality</a>	Keith Jeffrey
<a href="#">Semantic Interoperability and ontologies</a>	Keith Jeffrey
<a href="#">Privacy aspects of data sharing</a>	Yi Yin
Trust aspects of data sharing ( <a href="#">Part 1</a> , <a href="#">Part 2</a> )	Yi Yin
<a href="#">Open data policies</a>	Anneke Zuiderwijk
<a href="#">Sustainability of data use</a>	Marjan Grootveld
<a href="#">Evaluation of open data initiatives</a>	Iryna Susha
<a href="#">Linked Open Statistical Data</a>	Efthimios Tambouris
<a href="#">Using data visualizations and analysis tools and technologies</a>	Chris Davis
Technologies for improving data quality, ( <a href="#">Part 1</a> , <a href="#">Part 2</a> )	Sunil Choenni
Metadata technologies – CERIF tutorial ( <a href="#">Part 1</a> , <a href="#">Part 2</a> , <a href="#">Part 3</a> )	Valerie Brasse
<a href="#">Open data cases on mobility and travel behaviour</a>	Bert van Wee
<a href="#">Open data cases on energy</a>	Emile Chappin
<a href="#">Open data cases - Geo-information</a>	Bastiaan van Loenen
<a href="#">Open data cases - Open Vienna</a>	Peter Paryek
<a href="#">Open data cases in developing countries - public spending</a>	Ricardo Matheus
<a href="#">Open data cases in developing countries – urban mobility</a>	Ricardo Matheus
<a href="#">Open data cases - Open Government reform New York</a>	Sharon Dawes
<a href="#">Open data cases in Switzerland</a>	Alessia Neuron
<a href="#">Conclusions of the course</a>	Marijn Janssen / Anneke Zuiderwijk

## Introduction to Open data governance and use

**Lecturer** Marijn Janssen



In the first video of the course Marijn explains the need for Data Governance. Also he explains in further detail what data governance exactly is.

[Click here for the video](#)

## Challenges for open data publication and use

**Speaker** Anneke Zuiderwijk

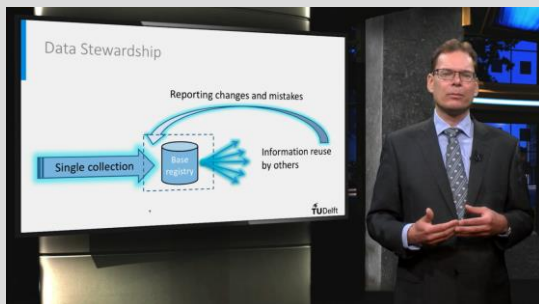


Anneke presents 7 different categories of challenges that are present for open data governance and use. Within the 2 parts she explains the different categories in detail and concluded with the relation between all these challenges.

Click here for [Part 1](#) & [Part 2](#)

## Theoretical foundations and concepts of open data governance

**Speaker** Marijn Janssen

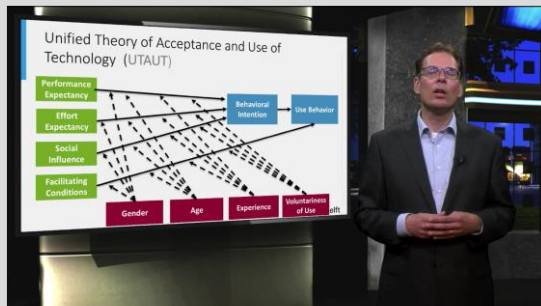


In this video Marijn is discussing the main theories and concepts for data governance. Furthermore after watching this video the student will be able to apply the theories and concepts for gaining understanding in data governance.

[Click here for the video](#)

## Theoretical foundations and concepts of open data use

**Speaker** Marijn Janssen



In this video Marijn is discussing the main theories and concepts for data use. It is important to understand the principles for designing a user experience. Some principles for user-interface design are given at the end of the video.

[Click here for the video](#)

## Open data infrastructures

**Speaker** Anneke Zuiderwijk

Characteristics (examples)	Energy infrastructure	Traffic infrastructure	Open data infrastructures
Actors involved	Energy providers and users	Road providers and users	Data providers and users
Interconnected elements	Power plants, energy grids, houses	Cities, harbors, airports	Data, platforms, tools, people
Transfer/exchange of resources	Electricity	Goods	Data, information, knowledge
Interoperability	Electricity plugs	Traffic signs	Metadata standards
Evolvement	Sustainable energy	New types of more sustainable assets	New data sharing and use technologies
Level of sharing	Shared	Shared	Shared

Within this video the different elements of open data infrastructures are defined. In this video a lot of examples of open data infrastructures will be given and explained. Different open data infrastructures will be analysed based on some characteristics.

[Click here for the video](#)

## Open Statistical Data

**Speaker** Efthimios Tambouris



Statistics play an important role in Open Data, most open data is just plain statistics. Through 3 simple processes: discover, explore and exploit is shown how users can get the most out of the data.

[Click here for the video](#)

## Open data infrastructure tools and functionalities

**Speaker** Anneke Zuiderwijk

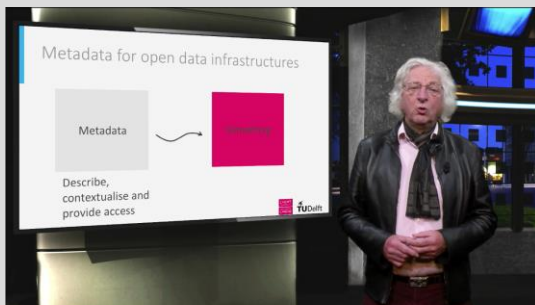


In these videos it is important to obtain a high level overview of functionalities and tools provided by open data infrastructures.

Click here for [Part 1](#) & [Part 2](#)

## Metadata

**Speaker** Keith Jeffrey

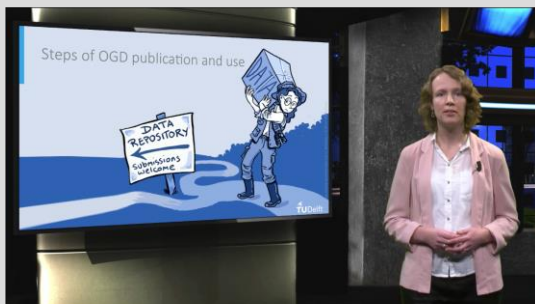


Keith Jeffrey in this video explains the need for metadata. He gives examples of how metadata can be used in open data. At the end of the video different standards are shown and their differences discussed.

[Click here for the video](#)

## Open data for public policy making

**Speaker** Anneke Zuiderwijk



In this video the different steps of Open Government Data (OGD) publication and use are explained. After this has been done Anneke explains how OGD can help policy makers to improve their work.

[Click here for the video](#)



## Creating a pipeline for publishing open data

**Speaker** Marijn Janssen

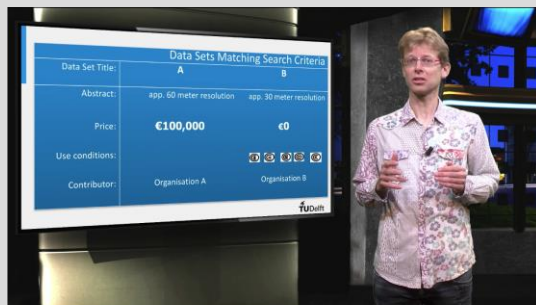


Data can be published in different ways, a data pipeline is one of them. Data that is published in a Data pipeline is different and can change more frequently. Marijn explains in this video the different approach for open data that is published in a pipeline.

[Click here for the video](#)

## Licenses for the use of open government data

**Speaker** Bastiaan van Loenen



After having seen this video you should be able to analyse and discuss the different types of open licences. Students will understand the needs and benefits for transparent and interoperable licences. Bastiaan also explains which licences to use in which situation.

[Click here for the video](#)

## Data visualization and analysis tools

**Speaker** Chris Davis

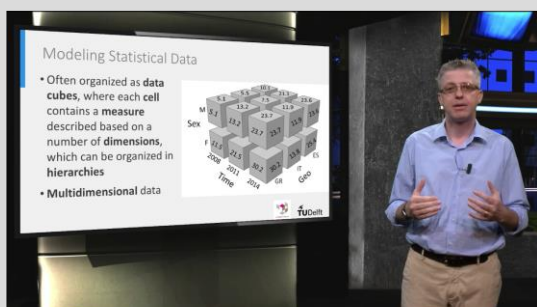


This video is focussing on the different steps that are often used for data visualization and analysis. In this video Chris gives a lot of examples how the data can be visualized and used by users of data.

[Click here for the video](#)

## Open Statistical Data and the Data Cube Model

**Speaker** Efthimios Tambouris

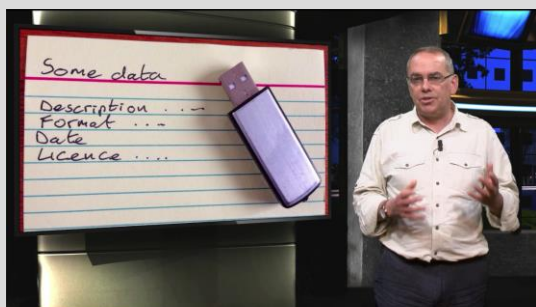


This video introduces the concept of data cube-centric open data portals. The differences are being discussed and an detailed explanation of the data cube are given. Online Analytical Processing (OLAP) is used to shape and modify a data cube.

[Click here for the video](#)

## Linked Open Data Technologies

**Speaker** Phil Archer

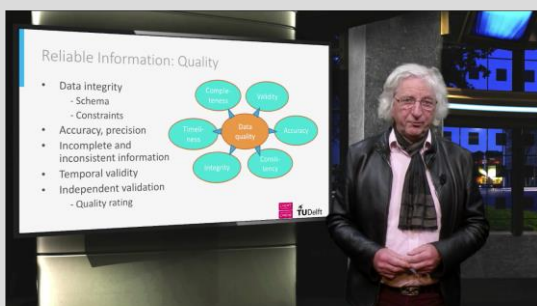


Phil Archer from the World Wide Web Consortium gives a lecture on useful concepts of the web. What is the difference between URI's and URL's? At the end of the video the web best practices are given on how to improve the Open Data.

[Click here for the video](#)

## Reliable information for open data use

**Speaker** Keith Jeffrey



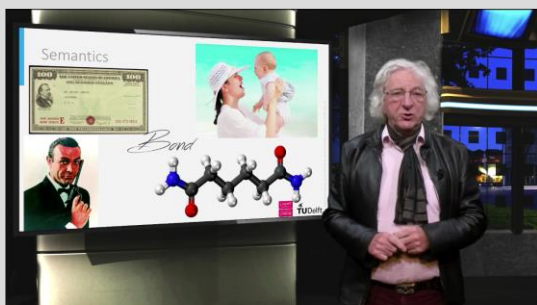
After having watched the video the student is able to discuss the three key elements of reliable information for the use of open data infrastructures: Quality, Context and Availability. Through examples the student is made aware of the different viewpoints on data.

[Click here for the video](#)



## Semantic Interoperability and Ontologies

**Speaker** Keith Jeffrey

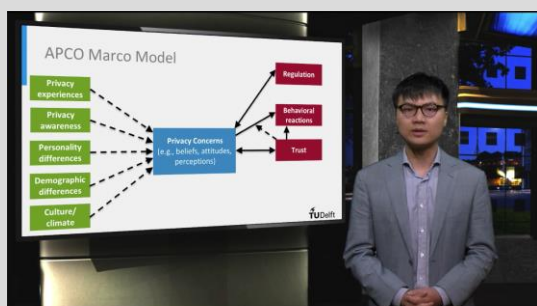


One word can have a lot of different meanings. Humans are quite good in putting this in context but how is this with computers? Through the use of ontologies systems can be more aware of how data is being set up and be more userfriendly.

[Click here for the video](#)

## Privacy aspects of data sharing

**Speaker** Yi Yin

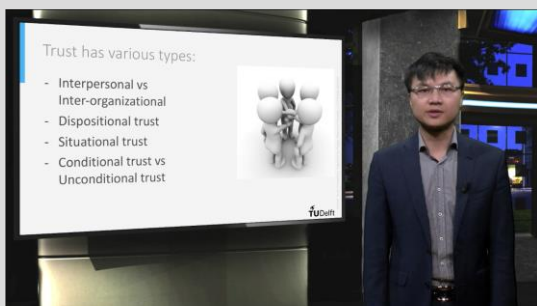


In this video the different dimensions of privacy are being discussed. Furthermore the need for data protection is explained by the different concerns there are. Different technical and managerial solutions are given in order to improve privacy.

[Click here for the video](#)

## Trust aspects of data sharing

**Speaker** Yi Yin



Open data and sharing data in some occasions need a lot of trust in the other party doing the right thing. In these 2 videos the different types of trust and characteristics are explained. Different solutions are given in order to enhance trust.

[Click here for Part 1 & Part 2](#)

## Open data policies

**Speaker** Anneke Zuiderwijk

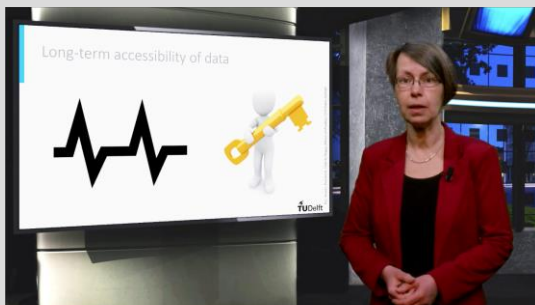


After having watched the video the student is able to explain an open data policy and define the elements and characteristics of it. The 4 different elements of open data policies are further explored in order to make sure everything is included in a Open Data Policy

[Click here for the video](#)

## Sustainability of data use

**Speaker** Marjan Grootveld

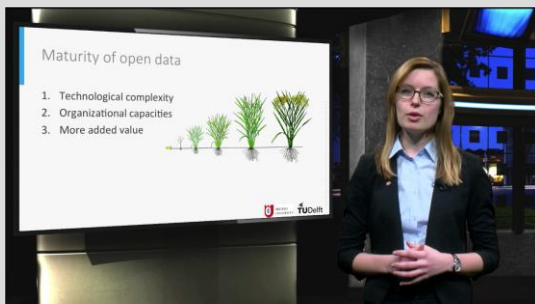


Old Open data can be very useful for different users. Therefore it is essential that data can be useable for a long period of time. A Data Lifecycle and a Data Management plan are very important in order to be sure that the data can be used in the future.

[Click here for the video](#)

## Evaluation of open data initiatives

**Speaker** Iryna Sussha



After having seen this video you will be able to analyse the maturity of open data initiatives. Furthermore different benchmarks are shown that are being used in order to measure the effectiveness of open data efforts.

[Click here for the video](#)

## Linked Open Statistical data

**Speaker** Efthimios Tambouris

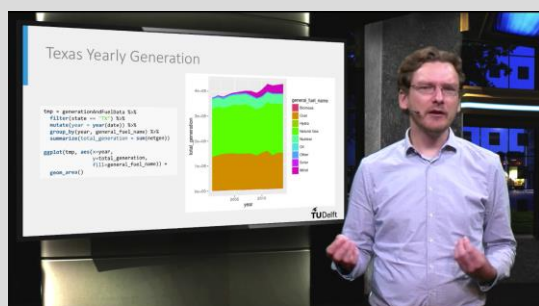


In this video the 5-star Open Data Model is explained and what Linked Open Data has to do with it. With Linked Open Data a bigger potential for the data can be realised. A more detailed presentation is given on the possibilities and different techniques needed for this.

[Click here for the video](#)

## Using data visualisations and analysis tools

**Speaker** Chris Davis



This video is a very practical tutorial on how data can be visualised. A dataset about flowers is being used and the different possibilities for analysis are shown.

[Click here for the video](#)

## Tools for improving data quality

**Speaker** Sunil Choenni



Different tools for improving quality are presented in this video. But how can Data quality be measured? Sunil Choenni presents different perspectives on data quality and also shows different examples of data that is changing over time.

Click here for [Part 1](#) & [Part 2](#)

# Metadata technologies

**Speaker** Valerie

These 3 videos will be focussing on the specific use of CERIF. In this 3 videos a detailed explanation is given on the possibilities. CERIF can be used for Research projects, persons, organisations or other entities.

Click for [Part 1](#), [Part 2](#) & [Part 3](#)

These 3 videos will be focussing on the specific use of CERIF. In this 3 videos a detailed explanation is given on the possibilities. CERIF can be used for Research projects, persons, organisations or other entities.

[illegible]

# Open data cases on mobility and travel behaviour

**Speaker** Bert van Wee

A man with glasses and a beard, wearing a blue blazer over a light blue shirt, stands in front of a large screen. The screen displays a presentation titled 'What is travel behaviour?' with a bulleted list: '- Frequency', '- Places/distances', '- Means of transport', '- Route choice', and '- Departure time'. Below the text are three small images: a city street with a red tram, a highway with cars, and a train track. The background is a modern interior with blue lighting.

How can travel behaviour be measured and what is it exactly? In this video the advantages of big data for travel behaviour research are discussed. Also the dangers of self-selection is explained that can be present in the data.

[Click here for the video](#)

How can travel behaviour be measured and what is it exactly? In this video the advantages of big data for travel behaviour research are discussed. Also the dangers of self-selection is explained that can be present in the data.

# What is travel behaviour?

- Frequency
- Places/distances
- Means of transport
- Route choice
- Departure time

# Open data cases on energy

**Speaker**    Emile Chappin

In this video is explained how the different data is collected and how it should be interpreted. How can users determine how much energy is sustainable? Also 2 examples are presented: The EU refrigerator sales and the EU Emission trading scheme.

[Click here for the video](#)



In this video is explained how the different data is collected and how it should be interpreted. How can users determine how much energy is sustainable? Also 2 examples are presented: The EU refrigerator sales and the EU Emission trading scheme.

Energy system:  
capacity, production and consumption

The diagram illustrates the relationship between energy capacity, production, and consumption. On the left, a power plant icon (a house with a lightning bolt) is labeled '25Wh', representing capacity. In the center, a bar chart shows '3500 kWh' of production, with a red bar for peak and a blue bar for average. On the right, a light bulb icon (a house with a light bulb) is labeled '25W', representing consumption. A yellow arrow points from the power plant to the light bulb. Below the light bulb, it states '1 hour = 25Wh' and '1000 hours = 25kWh'. The TU Delft logo is at the bottom right.

3500 kWh

25Wh

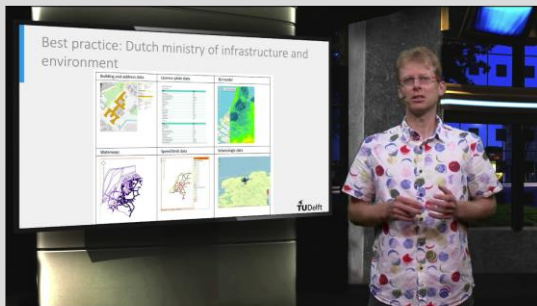
25W

1 hour = 25Wh  
1000 hours = 25kWh

TU Delft

## Open data cases - Geo-information

**Speaker** Bastiaan van Loenen

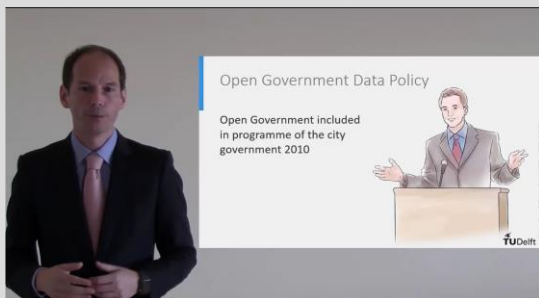


First the road to open data in the Netherlands is explained. After the explanation a lot of different Open data cases are shown that are based on geo-information. The video concludes with the new challenges that are being raised by Open Data.

[Click here for the video](#)

## Open data cases – Open Vienna

**Speaker** Peter Paryek



How did Vienna incorporate Open Government? In this video the history of the Open Vienna is shown together with the different layers for successful open data initiatives. At the end of the video the internal and external benefits of the project are discussed.

[Click here for the video](#)

## Open data cases in developing countries - public spending

**Speaker** Ricardo Matheus



How did the open data portal change the public spending in Brasil? In this video is explained how more transparency was created. Also the benefits and complicities to this case are discussed in great detail.

[Click here for the video](#)



## Open data cases in developing countries – urban mobility

**Speaker** Ricardo Matheus



How has the public transport in Rio de Janeiro been changed because of Open Data? This example shows how the buslines have been rearranged and what measures have been taken to avoid deaths in traffic.

[Click here for the video](#)

## Open data cases - Open Government reform New York

**Speaker** Sharon Dawes



In this video the Open Government reform in New York is analysed. The different steps taken by the different actors are shown. The Strengths and Weaknesses of the approach are mentioned and discussed.

[Click here for the video](#)

## Open data cases in Switzerland

**Speaker** Alessia Neuroni



In this video the detailed development of the Open Government Data in Switzerland is given. This video shows the process (strategy, vision, measures and objectives) spread out over multiple years in order to reach the current situation

[Click here for the video](#)



## Conclusions of the ProfEd



**Speakers** Marijn Janssen &  
Anneke Zuiderwijk

All the important lessons learned from the course will be discussed. The final video provides a broader overview for the students that have followed the complete course.

[Click here for the video](#)